

**INITIAL EXPRESS TERMS FOR  
PROPOSED BUILDING STANDARDS OF THE  
CALIFORNIA BUILDING STANDARDS COMMISSION**

**REGARDING PROPOSED CHANGES TO THE  
2016 CALIFORNIA PLUMBING CODE  
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 5**

**LEGEND FOR EXPRESS TERMS**

1. Existing California amendments or code language being modified are in italics when they appear in the model code text: All such language appears in *italics*, modified language is underlined.
2. New California amendments: All such language appears underlined and in italics.
3. Repealed text: All such language appears in ~~strikeout~~.
4. *[Information for the reader: All such language is bracketed and in red italics]*

**INITIAL EXPRESS TERMS**

The California Building Standards Code (California Code of Regulations, Title 24, Parts 1, 2, 2.5, 3, 4, 5, 6, 8, 9, 10, 11, and 12) is published in its entirety every three years and is applicable to all buildings for which an application for a building permit is made during the Code's effective period. The 2016 Intervening Code Adoption Cycle serves as the 18-month cycle and provides State agencies the ability to propose amendments (Supplements) to the 2016 California Building Standards Code. These Express Terms are applicable to the 2016 edition of CCR Title 24, Part 5. The supplement will become effective on July 1, 2018. These proposed regulations amend the 2016 edition California Plumbing Code (CPC), by incorporating regulation proposals found in the California Green Building Standards Code (Part 11, Title 24, CCR) and identified with the CBSC-CG banner.

**Items 1-4** pertain to amendments specific to hybrid urinals, as well as the alignment of flow rates for showerheads and other plumbing fixtures with those in Title 20 of the California Code of Regulations. For these elements, CBSC proposes to adopt and amend Chapters 2, 4, 6, and 7.

**Items 5-10 pertain to mandatory recycled water building standards, as follows:**

The California Building Standards Commission (CBSC) is proposing to add appropriate sections to the code that require the installation of recycled water supply systems for newly constructed nonresidential buildings. Pursuant to AB 2282 (Gatto, Chapter 606, Statutes of 2014), which added Section 18940.6 to the Health and Safety Code, the legislature mandated that CBSC, along with the Department of Housing and Community Development (HCD) and other interested parties, research, develop, and propose for adoption mandatory recycled water infrastructure standards during the 2016 Intervening Code Adoption Cycle. This would result in the installation of recycled water supply systems in new residential and nonresidential construction, as specified. CBSC proposes to adopt and amend Chapters 1, 2, 6, 15, and 16. These provisions will aid in the reduction of potable water use. HCD and the Department of Water Resources are also proposing similar amendments this cycle.

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**PROPOSED NEW AMENDMENTS**

**ITEM 1. CBSC proposes to amend Chapter 2 as follows:**

**CHAPTER 2  
DEFINITIONS**

**201.0 General**

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**203.0**

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## 210.0

### House sewer...

**Hybrid Urinal. [BSC-CG]** *A urinal that conveys waste into the drainage system without the use of water for flushing; and automatically performs a drain-cleansing action after a predetermined amount of time as defined in Chapter 2 of the California Green Building Standards Code (CALGreen).*

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#### Notation:

Authority: Health and Safety Code Sections 18928, 18929.1, 18930.5, 18934.5 and 18940.5

Reference: Health and Safety Code Section 18928.1, 18940.5 and 18940.6

## **ITEM 2. CBSC proposes to amend Chapter 4, Section 408.0 Showers, Sections 411.0 Water closets, and Section 412.0 Urinals**

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### 408.0 Showers

**408.1 Application.** Manufactured shower receptors and shower bases...

**408.2 Water Consumption. [HCD1]** Showerheads shall have a maximum flow rate...

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**408.2.1 Single Showerhead. [BSC-CG]** Showerheads shall have a maximum flow rate of not more than ~~2.0~~ **1.8** gallons (~~7.57~~ **6.8** L) per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads in compliance with Chapter 5, Division 5.3 of the California Green Building Standards Code (CALGreen).

**408.2.2 Multiple Showerheads Serving One Shower. [BSC-CG]** When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed ~~2.0~~ **1.8** (~~7.57~~ **6.8** L) gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time in compliance with Chapter 5, Division 5.3 of the California Green Building Standards Code (CALGreen).

*Note: A hand-held shower shall be considered a showerhead.*

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### 411.0 Water Closets

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**411.2.3 Flushometer Valve Activated Water Closets.** Flushometer valve activated water closets shall have a maximum flush volume...

**411.2.3.1 Flushometer Valve Activated Water Closets. [BSC-CG]** Flushometer valve activated water closets shall have a maximum flush volume of 1.28 gallons (4.8 ~~Lpf~~ **Lpf**) per flush in accordance with ASME A112.19.2/CSA B45.1.

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**412.1.3 Nonwater Urinals.** Nonwater urinals shall have a barrier liquid sealant to maintain a trap seal. Nonwater urinals shall permit the uninhibited flow of waste through the urinal to the sanitary drainage system. Nonwater urinals shall be cleaned and maintained in accordance with the manufacturer's instructions after installation. Where nonwater urinals are installed, not less than one water supplied fixture rated at not less than 1 water supply fixture unit (WSFU) shall be installed upstream on the same drain line to facilitate drain line flow and rinsing. Where nonwater urinals are installed they shall have a water distribution line rough-in to the urinal location to allow for the installation of an approved backflow prevention device in the event of a retrofit. *For additional information, see Health and Safety Code Section 17921.4.*

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**412.1.3.1 Hybrid Urinal. [BSC-CG]** *Where approved, hybrid urinals shall be considered nonwater urinals. Hybrid urinals shall comply with ASME A112.19.19-2016 and in compliance with Chapter 5, Division A5.3 of the California Green Building Standards Code (CALGreen).*

**Notation:**

Authority: Health and Safety Code Sections 18928, 18929.1, 18930.5, 18934.5 and 18940.5

Reference: Health and Safety Code Section 18928.1, 18940.5 and 18940.6

**ITEM 3. CBSC proposes to amend Chapter 6 as follows:**

**CHAPTER 6  
WATER SUPPLY AND DISTRIBUTION**

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**TABLE 610.3  
WATER SUPPLY FIXTURE UNITS (WSFU) AND MINIMUM FIXTURE BRANCH PIPES SIZES<sup>3</sup>**

APPLIANCES, APPURTENANCES OR FIXTURES <sup>2</sup>	MINIMUM FIXTURE BRANCH PIPE SIZE <sup>1,4</sup> (inches)	PRIVATE	PUBLIC	ASSEMBLY <sup>6</sup>
<u>Urinal, Hybrid</u>	<u>1/2</u>	<u>1.0</u>	<u>1.0</u>	<u>1.0</u>

*[Portions of Table 610.3 not shown remain unchanged]*

**Notation:**

Authority: Health and Safety Code Sections 18928, 18929.1, 18930.5, 18934.5 and 18940.5

Reference: Health and Safety Code Section 18928.1, 18940.5 and 18940.6

**ITEM 4. CBSC proposes to amend Chapter 7, Table 702.1**

**CHAPTER 7  
SANITARY DRAINAGE**

**TABLE 702.1  
DRAINAGE FIXTURE UNIT VALUES (DFU)**

PLUMBING APPLIANCES, APPURTENANCES, OR FIXTURES	MINIMUM SIZE TRAP AND TRAP ARM <sup>7</sup> (inches)	PRIVATE	PUBLIC	ASSEMBLY <sup>8</sup>
<u>Urinal, Hybrid</u>	<u>2</u>	<u>1.0</u>	<u>1.0</u>	<u>1.0</u>

*[Portions of Table 610.3 not shown remain unchanged]*

**Notation:**

Authority: Health and Safety Code Sections 18928, 18929.1, 18930.5, 18934.5 and 18940.5

Reference: Health and Safety Code Section 18928.1, 18940.5 and 18940.6

**ITEM 5. CBSC proposes to amend Chapter 1, Section 1.2.3 BSC-CG as follows:**

**CHAPTER 1 ADMINISTRATION  
DIVISION I, CALIFORNIA ADMINISTRATION**

**1.2.0 Building Standards Commission.**

**1.2.1 BSC** *Specific scope of application of the agency responsible for enforcement, the enforcement agency, and the specific authority to adopt and enforce such provisions of this code, unless otherwise stated.*

**1. State Buildings for all Occupancies.**

**Application** – State buildings (all occupancies), including buildings constructed by the Trustees of the California State University (CSU) and the Regents of the University of California (UC) where no state agency has the authority to adopt building standards applicable to such buildings.

**Enforcing Agency** – State or local agency specified by the applicable provisions of law.

**Authority Cited** – Health and Safety Code section 18934.5.

**Reference** – Health and Safety Code, Division 13, Part 2.5, commencing with section 18901.

**2. University of California, California State Universities, and California Community Colleges.**

**Application** – Standards for lighting for parking lots and primary campus walkways at the University of California, California State Universities, and California Community Colleges.

**Enforcing Agency** – State or local agency specified by the applicable provisions of law.

**Authority Cited** – Government Code section 14617.

**Reference** – Government Code section 14617.

**3. Existing State-Owned Buildings, including those owned by the University of California and by the California State University–** *Building seismic retrofit standards including abating falling hazards of structural and nonstructural components and strengthening of building structures. See also Division of the State Architect.*

**Enforcing Agency** – State or local agency specified by the applicable provisions of law.

**Authority Cited** – Government Code section 16600

**Reference** – Government Code sections 16600 through 16604

**4. Unreinforced Masonry Bearing Wall Buildings.**

**Application** – Minimum seismic strengthening standards for buildings specified in the California Existing Building Code, except for buildings subject to building standards adopted pursuant to Part 1.5 (commencing with Section 17910)

**Enforcing Agency** – State or local agency specified by the applicable provisions of law.

**Authority Cited** – Health and Safety Code section 18934.7

**Reference** – Health and Safety Code Division 13, Part 2.5 commencing with Sections 18901.

**1.2.1.1 1.2.2.4 State building.** *For purposes of this code, a “state building” is a structure for which a state agency or state entity has authority to construct, alter, enlarge, replace, repair or demolish.*

**1.2.1.2 1.2.2.2 Enforcement.** *[CSU, UC, Judicial Council and California Department of Corrections Rehabilitation] state agencies or state entities authorized to construct state buildings may appoint a building official who is responsible to the agency for enforcement of the provisions of the California Building Standards Code.*

**Exception:** *State buildings regulated by other sections of this code remain the enforcement responsibility of the designated entities.*

**1.2.2.3 Enforcement, Reserved for DGS.**

**1.2.2.4 Adopting agency identification.** *The provisions of this code applicable to buildings identified in this section will be identified in the Matrix Adoption Tables under the acronym BSC.*

**1.2.2 4.2.3 BSC-CG.** *Specific scope of application of the agency responsible for enforcement, the enforcement agency, and the specific authority to adopt and enforce such provisions of this code, unless otherwise stated.*

**1. Green building standards for nonresidential occupancies.**

**Application** – All occupancies where no other state agency has the authority to adopt green building standards applicable to those occupancies.

**Enforcing agency** – State or local agency specified by the applicable provisions of law.

**Authority cited** – Health and Safety Code Sections 18930.5, 18938 and 18940.5.

**Reference** – Health and Safety Code, Division 13, Part 2.5, commencing with Section 18901.

**2. Graywater systems for nonresidential occupancies.**

**Application** – The construction, installation, and alteration of graywater systems for indoor and outdoor uses in nonresidential occupancies

**Enforcing agency** – State or local agency specified by the applicable provisions of law.

**Authority cited** – Health & Safety Code Section 18941.8.

**Reference** – Health & Safety Code Section 18941.8.

**1.2.3 4.2.2 Alternate Materials, Design, and Methods of Construction and Equipment.** *The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved. An alternative material, design, or method of construction shall be approved where the building finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method of work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quantity, strength, effectiveness, fire resistance, durability and safety.*

**1.2.23.1 Research Reports.** *Supporting data, where necessary to assist in the approval of materials or assemblies not specifically provided for in this code, shall consist of valid research reports from approved sources.*

**1.2.23.2 Tests.** *Whenever there is insufficient evidence of compliance with the provisions of this code, or evidence that a material or method does not conform to the requirements of this code, or in order to substantiate claims for alternative materials or methods, the building official shall have the authority to require tests as evidence of compliance to be made at no expense to the jurisdiction. Test methods shall be as specified in this code or by other recognized test standards. In the absence of recognized and accepted test methods, the building official shall approve the testing procedures. Tests shall be performed by an approved agency. Reports of such tests shall be retained by the building official for the period required for retention of public records.*

**Notation:**

Authority: Health and Safety Code Sections 18928, 18930.5, 18934.5, 18940.6, and 18941.8.

Reference: Health and Safety Code Section 18928.1, 18940.6, and 18941.8.

**ITEM 6. CBSC proposes to amend existing definitions, and adopt new definitions, in Chapter 2 of the 2016 California Plumbing Code as follows:**

## CHAPTER 2 DEFINITIONS

### 205.0

**Complex System [BSC-CG].** Gray water systems ....

### 206.0

**Disinfected Tertiary Recycled Water. [BSC-CG]** Filtered and subsequently disinfected wastewater that meets the approved method of treatment and minimum level of water quality specified in California Code of Regulations, Title 22, Division 4, Chapter 3 for the purpose of direct beneficial use.

**Disposal Field [BSC-CG].** An intended destination ....

### 207.0

**Enforcing Agency [BSC, BSC-CG].** "Enforcing Agency" is ....

### 209.0

**Graywater [BSC-CG].** Pursuant to Health and Safety Code Section 17922.12, "graywater" means ....

**Gray Water System [BSC-CG].** A system designed to collect gray water ....

### 211.0

**Irrigation Field [BSC-CG].** An intended destination....

### 215.0

**Mulch Basin [BSC-CG].** A subsurface type of irrigation ....

### 217.0

**On-Site Treated Nonpotable Water [BSC-CG].** Nonpotable water ....

### 220.0

**Rainwater [BSC-CG].** Precipitation on any public or private parcel ....

**Rainwater Catchment System [BSC-CG].** A facility designed to capture ....

**Receiving Landscape [BSC-CG & HCD 1].** Includes features such as ....

**Reclaimed (Recycled) Water. [BSC-CG]** Nonpotable water that meets California Department of Public Health State Water Resources Control Board statewide uniform criteria for disinfected tertiary recycled water. Reclaimed (recycled) water is also known as "recycled water" or "reclaimed water".

**Recycled Water Supply System. [BSC-CG]** The building supply pipe, the water distribution pipes, and the necessary connecting pipes, fittings, control valves, backflow prevention devices, and all appurtenances carrying or supplying municipal recycled water in the building or within the property lines of the premises.

#### **Notation:**

Authority: Health and Safety Code Sections 18928, 18930.5, 18934.5, and 18940.6

Reference: Health and Safety Code Section 18928.1 and 18940.6

**ITEM 7. CBSC proposes to adopt and amend existing exceptions, and adopt a new exception, in Chapter 6 of the 2016 California Plumbing Code as follows:**

## CHAPTER 6 WATER SUPPLY AND DISTRIBUTION

**601.2 Hot and Cold Water Required.** Except where not deemed necessary for safety or sanitation by the Authority Having Jurisdiction, each plumbing fixture shall be provided with an adequate supply of potable running water piped thereto in an approved manner, so arranged as to flush and keep it in a clean and sanitary condition without danger of backflow or cross-connection. Water closets and urinals shall be flushed by means of an approved flush tank or flushometer valve.

**Exceptions:**

1. **[BSC-CG]** Listed fixtures that do not require water for their operation and are not connected to the water supply.
2. "...".
3. "...".
4. **[BSC-CG]** *For commercial and public buildings (nonresidential buildings), alternate water sources shall be allowed as specified in Chapter 15 of this code.*
5. ~~4.~~ **[BSC-CG]** *Where a public agency requires a building to use recycled water to flush water closets and urinals in accordance with California Water Code 13554.*

In occupancies where plumbing fixtures are installed for private use, hot water shall be required for bathing, washing, laundry, cooking purposes, dishwashing or maintenance. In occupancies where plumbing fixtures are installed for public use, hot water shall be required for bathing and washing purposes. This requirement shall not supersede the requirements for individual temperature control limitations for public lavatories and public and private bidets, bathtubs, whirlpool bathtubs, and shower control valves.

### **601.3 Identification of a Potable and Nonpotable Water System.** *[No change]*

#### **601.3.1 Potable Water.** *[No change]*

#### **601.3.2 Color and Information.** *[No change]*

**601.3.3 Alternate Water Sources.** **[BSC-CG]** Alternate water source systems except for recycled water supply systems shall have a purple (Pantone color No. 512, 522C, or equivalent) background with uppercase lettering and shall be field or factory marked as follows:

- (1) Gray water systems shall be marked in accordance with this section with the words "CAUTION: NONPOTABLE GRAY WATER, DO NOT DRINK" in black letters.
- ~~(2) Reclaimed (recycled) water systems shall be marked in accordance with this section with the words: "CAUTION: NONPOTABLE RECLAIMED (RECYCLED) WATER, DO NOT DRINK" in black letters.~~
- ~~(2)~~ (3) On-site treated water systems shall be marked in accordance with this section with the words: "CAUTION: ON-SITE TREATED NONPOTABLE WATER, DO NOT DRINK" in black letters.
- ~~(3)~~ (4) Rainwater catchment systems shall be marked in accordance with this section with the words: "CAUTION: NONPOTABLE RAINWATER WATER, DO NOT DRINK" in black letters.

For recycled water supply systems, the provisions of Section 1503.7 shall apply.

**Notation:**

Authority: Health and Safety Code Sections 18928, 18930.5, 18934.5, and 18940.6

Reference: Health and Safety Code Section 18928.1 and 18940.6

**ITEM 8. CBSC proposes to adopt and amend Chapter 15, Sections 1501 and 1502 of the 2016 California Plumbing Code as follows:**

**CHAPTER 15  
ALTERNATE WATER SOURCES FOR NONPOTABLE APPLICATIONS**

**Intent**

*The provisions of this chapter are intended to:*

1. Conserve potable water by facilitating greater reuse of laundry, shower, lavatory and similar sources of water discharge, ~~for irrigation and/or indoor use.~~
2. Conserve potable water by the use of other alternate water sources.
- ~~2.3.~~ Reduce the number of non-compliant gray water systems by making legal compliance easily achievable.
- ~~3.4.~~ Provide guidance for avoiding potentially unhealthful conditions.
- ~~4.5.~~ Provide an alternative way to relieve stress on a private sewage disposal system by diverting the graywater.

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**1501.1 Applicability. [BSC-CG]** The provisions of this chapter shall apply to the construction, alteration, discharge, use and repair of alternate water source systems for nonpotable applications.

**1501.2 System Design.** Alternate water source systems complying with this chapter shall be designed by a person who demonstrates competency to design the alternate water source system as required by the Enforcing Agency. The Enforcing Agency may also require plans and specifications to be prepared by a licensed design professional for Complex Systems. Components, piping and fittings used in any alternate water source system shall be listed. Recycled water supply systems shall be designed by a person licensed to perform plumbing design work.

**1501.3 Permit.** It shall be unlawful for a person to construct, install, alter, or cause to be constructed, installed, or altered an alternate water source system in a building or on a its premises without first obtaining a permit to do such work ~~from the Authority Having Jurisdiction.~~ Prior to commencing the issuance of permits for indoor gray water systems pursuant to state requirements relating to gray water, a city, county, city and county or other local agency shall seek consultation with the local public health department to ensure that local public health concerns are addressed in local standards or ordinances, or in issuing permits. See California Water Code Section 14877.3. No changes or connections shall be made to either the alternate water source system or the potable water system within a site containing an alternate water source system without approval by the Authority Having Jurisdiction.

**Exception:** A construction permit shall not be required for a clothes washer system meeting the requirements of Section 1502.1.1.

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**1501.5 Maintenance and Inspection.** Alternate water source systems and components shall be inspected and maintained in accordance with ~~the manufacturer's recommendations and/or as required by the Enforcing Agency~~ Authority Having Jurisdiction. **[BSC-CG]** Where no manufacturer's recommendations or Authority Having Jurisdiction requirements exist, additional recommendations are listed in Table 1501.5.

**Exception:** [BSC-CG] Reclaimed (recycled) water systems shall comply with Section 1503.15.

#### **1501.5.1 Maintenance Responsibility.**

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**1501.6 Operation and Maintenance Manual.** An operation and maintenance manual for gray water, ~~and on-site treated nonpotable water, and recycled water~~ systems required to have a permit in accordance with Sections 1501.3, 1503.2 and 1504.2 shall be supplied to the building owner by the system designer or installer. The operating and maintenance manual shall include the following:

- (1) *Diagram(s) of the entire system and the location of system components.*
- (2) *Instructions on operating and maintaining the system.*
- (3) *Instructions on maintaining the required water quality for on-site treated nonpotable water systems.*
- (4) *Details on startup, shutdown, and deactivating the system for maintenance, repair, or other purposes.*
- (5) *Applicable testing, inspection, and maintenance frequencies in accordance with Section 1501.5 or Section 1503.15 as applicable.*
- (6) *A method of contacting the installer and/or manufacturer(s).*
- (7) *Directions to the owner or occupant that the manual shall remain with the building throughout the life cycle of the structure.*

**1501.7 Minimum Water Quality Requirements.** The minimum water quality for alternate water source systems shall meet the applicable water quality requirements for the intended application as determined by the Authority Having Jurisdiction. ~~In the absence of water quality requirements for on-site treated nonpotable graywater systems, the requirements of NSF 350 shall apply.~~ Water quality requirements for on-site treated nonpotable graywater shall comply with Section 1504.10.2. Recycled water shall comply with the water quality requirements of Section 1503.14.

**Exception:** Water treatment is not required for gray water used in a disposal field or for subsurface or subsoil irrigation.

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#### **1501.10 Signage.**

For the purposes of on-site treated nonpotable gray water Sections 1501.10.1, 1501.10.2, and 1501.10.3 shall apply. For the purposes of reclaimed (recycled) water Section 1503.12 shall apply.

**1501.10.1 Commercial, Industrial, Institutional, and Residential Restroom Signs.** A sign shall be installed in restrooms in commercial, industrial, and institutional occupancies, ~~and shall also be installed in residential common use areas restrooms~~ using reclaimed (recycled) water and on-site treated nonpotable gray water for water closets, urinals, or both. Signs shall comply with all applicable requirements of the California Building Code. Each sign shall contain the following text:

TO CONSERVE WATER, THIS BUILDING USES \*\_\_\_\_\_\* ON-SITE TREATED  
~~NONPOTABLE GRAY WATER~~ GRAYWATER TO FLUSH TOILETS AND URINALS.

**1501.10.2~~1~~ Equipment Room Signs.** Each room containing ~~reclaimed (recycled) water and~~ on-site treated nonpotable gray water equipment shall have a sign posted in a location that is visible to anyone working on or near nonpotable gray water equipment with the following wording in 1 inch (25.4 mm) letters:

CAUTION: ~~NONPOTABLE~~ \*\_\_\_\_\_\* ON-SITE TREATED NONPOTABLE GRAYWATER, DO NOT DRINK. DO NOT CONNECT TO DRINKING WATER SYSTEM. NOTICE: CONTACT BUILDING MANAGEMENT BEFORE PERFORMING ANY WORK ON THIS WATER SYSTEM.

\* \_\_\_\_\_ \* Shall indicate RECLAIMED (RECYCLED) WATER or ON-SITE TREATED GRAY-WATER accordingly.

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**1501.11 Inspection and Testing.** Alternate water source systems shall be inspected and tested in accordance with Section 1501.11.1 and Section 1501.11.2, *and/or as required by the Authority Having Jurisdiction.*

***Exception:*** *Reclaimed (recycled) water systems shall comply with Section 1503.13.*

**1501.11.1 Supply System Inspection and Test.** Alternate water source systems shall be inspected and tested in accordance with this code for testing of potable water piping.

**1501.11.2 Cross-Connection Inspection and Testing.** An initial inspection and test shall be performed on both the potable and alternate water source systems. The potable and alternate water source system shall be isolated from each other and independently inspected and tested to ensure there is no cross-connection in accordance with Section 1501.11.2.1 through Section 1501.11.2.4 1501.11.2.3.

***Note:*** *Cross-connection inspection and testing requirements for recycled water plumbing systems are located in Section 1503 of this code, and must also comply with the requirements set forth in Title 22, Section 60316.*

**1501.11.2.1 Visual System Inspection.** Prior to commencing the cross-connection testing, a dual system inspection shall be conducted by the Authority Having Jurisdiction and other authorities having jurisdiction as follows:

- (1) Meter locations of the alternate water source and potable water lines shall be checked to verify that no modifications were made, and that no cross-connections are visible.
- (2) Pumps and equipment, equipment room signs, and exposed piping in equipment room shall be checked.
- (3) Valves shall be checked to ensure that the valve lock seals are still in place and intact. Valve control door signs shall be checked to verify that no signs have been removed.

**1501.11.2.2 Cross-Connection Test.** ~~The procedure for determining cross-connection shall be followed by the applicant~~ A cross-connection test shall be performed in the presence of the Authority Having Jurisdiction ~~and or~~ other authorities having jurisdiction to determine whether a cross connection has occurred as follows:

- (1) The potable water system shall be activated and pressurized. The alternate water source system shall be shut down, depressurized, and drained.
- (2) The potable water system shall remain pressurized for a minimum period of time specified by the Authority Having Jurisdiction while the alternate water source system is empty. The minimum period the alternate water source system is to remain depressurized shall be determined on a case-by-case basis, taking into account the size and complexity of the potable and the alternate water source distribution systems, but in no case shall that period be less than 1 hour.
- (3) The drain on the alternate water source system shall be checked for flow during the test, and all fixtures, potable and alternate water source, shall be tested and inspected for flow. Flow from an alternate water source system outlet indicates a cross-connection. No flow

from a potable water outlet shall indicate that it is connected to the alternate water source system.

- (4) The potable water system shall then be depressurized and drained.
- (5) The alternate water source system shall then be activated and pressurized. When an alternate water source is not available for the initial test, a temporary connection to a potable water supply will be required. At the conclusion of the test, the temporary connection to the potable water supply shall be disconnected.
- (6) The alternate water source system shall remain pressurized for a minimum period of time specified by the Authority Having Jurisdiction while the potable water system is empty. The minimum period the potable water system is to remain depressurized shall be determined on a case-by-case basis, but in no case shall that period be less than 1 hour.
- (7) Fixtures, potable and alternate water source, shall be tested and inspected for flow. Flow from a potable water system outlet indicates a cross-connection. No flow from an alternate water source outlet will indicate that it is connected to the potable water system.
- (8) The drain on the potable water system shall be checked for flow during the test and at the end test.
- (9) Where there is no flow detected in the fixtures which would indicate a cross-connection, the potable water system shall be repressurized.

**1501.11.2.3 Discovery of Cross-Connection.** In the event that a cross-connection is discovered, the following procedure, ~~in the presence of the Authority Having Jurisdiction,~~ shall be activated immediately:

- (1) Notify the Authority Having Jurisdiction of the cross connection.
- ~~(4)~~ (2) The alternate water source piping to the building and its premises shall be shut down at the meter, and the alternate water source riser shall be drained.
- ~~(2)~~ (3) Potable water piping to the building and its premises shall be shut down at the meter.
- ~~(3)~~ (4) The cross-connection shall be uncovered and disconnected.
- ~~(4)~~ (5) The building and its premises shall be retested in accordance with Section 1501.11.2.1 and Section 1501.11.2.2.
- ~~(5)~~ (6) The potable water system shall be chlorinated with 50 parts-per-million (ppm) chlorine for 24 hours.
- ~~(6)~~ (7) The potable water system shall be flushed after 24 hours, and a standard bacteriological test shall be performed. Where test results are acceptable, the potable water system shall be permitted to be recharged.

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**1501.12 Separation Requirements.** Underground alternate water source service piping other than gray water shall be separated from the building sewer in accordance with this code. Treated nonpotable water pipes shall be permitted to be run or laid in the same trench as potable water pipes with a 12 inch (305 mm) minimum vertical and horizontal separation where both pipe materials are approved for use within a building. Where horizontal piping materials do not comply with this requirement the minimum separation shall be increased to 60 inches (1524 mm). The potable water piping shall be installed at an elevation above the treated nonpotable water piping.

**1501.13 Abandonment.** Alternate water source systems that are no longer in use or fail to be maintained in accordance with Section 1501.5 shall be abandoned. Abandonment shall comply with Section 1501.13.1 and Section 1501.13.2.

**1501.13.1 General.** An abandoned system or part thereof covered under the scope of this chapter shall be disconnected from remaining systems, drained, plugged, and capped in an approved manner.

**1501.13.2 Underground Tank.** An underground water storage tank that has been abandoned or otherwise discontinued from use in a system covered under the scope of this chapter shall be completely drained and filled with earth, sand, gravel, concrete, or other approved material or removed in a manner satisfactory to the Authority Having Jurisdiction.

**1501.14 Sizing.** Unless otherwise provided for in this chapter, alternate water source piping shall be sized in accordance with Chapter 6 for sizing potable water piping.

## **1502.0 Gray Water Systems.**

....

**1502.3 Connections to Potable and Reclaimed (Recycled) Water Systems.** Gray water systems shall have no ~~unprotected~~ connection to a potable water supply, on-site treated nonpotable graywater supply, or reclaimed (recycled) water systems.

### **Exceptions:**

- (1) Potable water, on-site treated nonpotable graywater, reclaimed (recycled) water, ~~or rainwater~~ is permitted to be used as makeup water for a non-pressurized ~~storage tank~~ storage tank provided the connection is protected by an air gap, ~~reduced-pressure principal backflow preventer, or other physical device which prevents backflow~~ in accordance with this code.
- (2) A potable water supply may be connected temporarily for initial testing of the untreated graywater system.

### **Notation:**

Authority: Health and Safety Code Sections 18928, 18930.5, 18934.5, and 18940.6

Reference: Health and Safety Code Section 18928.1 and 18940.6

## **ITEM 9. CBSC proposes to adopt and amend Chapter 15, Sections 1503 and 1504 of the 2016 California Plumbing Code as follows:**

### **1503.0 Reclaimed (Recycled) Water Systems.**

**1503.1 General.** The provisions of this section shall apply to the installation, construction, alteration, and repair of reclaimed (recycled) water systems receiving reclaimed (recycled) water from a water/wastewater utility intended to supply uses such as water closets, urinals, trap primers for floor drains and floor sinks, aboveground and subsurface irrigation, industrial or commercial cooling or air conditioning and other allowed uses ~~approved by the Authority Having Jurisdiction~~.

**Note 1:** Recycled water uses that are generally allowed are specified in the California Code of Regulations, Title 22, Division 4, Chapter 3.

**Note 2:** Recycled water uses that are allowed from any particular wastewater treatment facility are specified in the permit for recycled water issued by the State Water Resources Control Board or Regional Water Quality Control Board.

**Note 3:** Unless specified otherwise, the general provisions applying to alternate water systems pursuant to Section 1501.0 and following shall apply to recycled water supply systems.

**Note 4:** In accordance with Water Code Section 13553, reclaimed (recycled) water is allowed for toilet and urinal flushing in certain structures. These structures include commercial, retail and

office buildings, theaters, auditoriums, condominium projects, schools, hotels, apartments, barracks, dormitories, jails, prisons, reformatories, and other structures as determined by the State Water Resources Control Board.

**1503.1.1 Scope Nonresidential. [BSC-CG]** All newly constructed nonresidential buildings, where disinfected tertiary recycled water is available from a municipal source to a nonresidential building site, shall be provided with both a potable water supply system and a recycled water supply system allowing for use of reclaimed (recycled) water and its intended uses in 1503.1.

**Exceptions:**

- (1) Service areas in which the only reclaimed (recycled) water is used for potable purposes, or in which net nonpotable deliveries are anticipated to remain level or decrease as a result of the potable reuse project.
- (2) Where access to disinfected tertiary recycled water is not feasible and/or cost-efficient, as determined by the Authority Having Jurisdiction in consultation with the water service authority.

**Note:** A city, county, or city and county, in consultation with the local recycled water purveyor, may further reduce the area for the mandate to install recycled water supply system(s) if the recycled water purveyor is unable to accommodate for new services or unable to provide uninterrupted service.

- (3) A potable water supply system is not required for landscape irrigation if the landscape irrigation system is supplied with recycled water.

**1503.2 Permit.** It shall be unlawful for a person to construct, install, alter, or cause to be constructed, installed, or altered a reclaimed (recycled) water system within a building or on ~~a~~its premises without first obtaining a permit to do such work from the Authority Having Jurisdiction.

Prior to commencing the issuance of permits for reclaimed (recycled) water supply systems pursuant to state requirements relating to recycled water, a city, county, city and county or other local agency shall seek consultation with the State Water Resource Control Board, local public health department and local recycled water purveyor to ensure that state and local public health concerns are addressed in local standards or ordinances, or in issuing permits. See California Water Code, Division 7, Chapter 7, Article 7 for Water Reuse.

**1503.2.1 Plumbing Plan Submission.** No permit for a reclaimed (recycled) water system shall be issued until complete plumbing plans, with data satisfactory to the Authority Having Jurisdiction, have been submitted and approved.

**1503.3 System Changes.** No changes or connections shall be made to either the reclaimed (recycled) water system or the potable water system within a site containing a reclaimed (recycled) water system without approval by the Authority Having Jurisdiction.

**1503.4 Connections to Potable or Reclaimed (Recycled) Water Systems.** Reclaimed (recycled) water supply systems shall have no connection to a potable water supply or alternate water source system.

**Exceptions:**

- (1) Potable water is permitted to be used as makeup water for a reclaimed (recycled) water storage tank provided the potable water supply inlet is protected by an air gap ~~or reduced-pressure principle backflow preventer~~ in accordance with this code.

- (2) A potable water supply may be connected temporarily for initial testing of the recycled water supply system.
- (3) Reclaimed (recycled) water is permitted to be used as makeup water for an alternate water source system provided the recycled water supply system is protected by an air gap in accordance with this code.

**1503.5 Initial Cross-Connection Test.** A cross-connection test is required in accordance with Section 1503.13.2.2 1504.14.2. Before the building is occupied or the system is activated, the installer shall perform ~~the an~~ initial cross-connection test in the presence of the Authority Having Jurisdiction ~~and or~~ other authorities having jurisdiction. The test shall be ruled successful by the Authority Having Jurisdiction before final approval is granted.

**1503.6 Reclaimed (Recycled) Water System Materials.** Reclaimed (recycled) water supply and distribution system materials shall comply with the requirements of this code for potable water supply and distribution systems, unless otherwise provided for in this section.

**1503.7 Reclaimed (Recycled) Water System Color and Marking Information.** All mechanical equipment, including control valves, appurtenant to reclaimed (recycled) water systems shall be painted purple or composed of purple material matching Pantone color No. 512, 522C or equivalent. Reclaimed (recycled) water systems shall have a colored background and marking information in accordance with Section 601.3 of this code be identified and permanently marked with clearly visible black uppercase lettering on purple background. The identification may be accomplished by labeling metallic and non-metallic piping using purple-colored (Pantone color No. 512) adhesive Mylar PVC tape, or other approved materials, affixed along the entire length of the pipe, or using non-metallic pipe manufactured with purple (Pantone color No. 512, 522C, or equivalent) integral to the material. For either material, the tape or pipe shall be installed so the wording is clearly visible and shall be field or factory marked as follows:

"CAUTION: NONPOTABLE RECYCLED WATER, DO NOT DRINK".

**1503.8 Valves.** Valves, except fixture supply control valves, shall be equipped with a locking feature.

**1503.8.1 Valve Seals.** The master reclaimed (recycled) water shut-off valve and/or the reclaimed (recycled) water meter curb cock and each valve within a wall shall be sealed after the recycled water supply system has been approved and placed into operation. These seals shall be either crimped lead wire seal or plastic break away seal which, if broken after system approval, shall be deemed conclusive evidence that the recycled water supply system has been accessed. The seals shall be purple, numbered, and contain the words "RECYCLED WATER", and shall be supplied by the recycled water purveyor, or by other arrangements acceptable to the Authority Having Jurisdiction. A record of the seal numbers and the reasons for breaking and replacing them shall be recorded in the maintenance log pursuant to Section 1503.15.2.

**1503.8.2 Valve and Appurtenance Access Door Signs.** Each reclaimed (recycled) water valve within a wall shall have its access door into the wall equipped with a warning sign approximately six (6) inches by six (6) inches (152 mm x 152 mm) with wording in approximately 3/8 inch (9.5 mm) letters on a purple background. The wording text and format of the sign shall be substantially the same as that specified in Section 1503.12. The signs shall be attached inside the access door frame and shall hang in the center of the access door frame. This sign requirement shall be applicable to any and all access doors, hatches, etc., leading to reclaimed (recycled) water piping and appurtenances.

**1503.9 Hose Bibbs.** Hose bibbs shall not be allowed on reclaimed (recycled) water piping systems located in areas accessible to the public. ~~Access to reclaimed (recycled) water at points in the system~~

accessible to the public shall be through a quick-disconnect device Only quick couplers that differs from those installed on the potable water system shall be used on the recycled water piping system in areas subject to public access. ~~Hose bibbs~~ Quick couplers supplying reclaimed (recycled) water shall be marked with the words: "CAUTION: NONPOTABLE RECLAIMED RECYCLED WATER, DO NOT DRINK," and the symbol in Figure 1503.9.

**Exception:**

In accordance with Health and Safety Code Section 8117 and 8118, hose bibbs are approved for use in cemeteries supplied with reclaimed (recycled) water. A hose bibb in an area subject to access by the general public shall be equipped with a sign marked "CAUTION: NONPOTABLE RECYCLED WATER, DO NOT DRINK," and the symbol in Figure 1503.9.



FIGURE 1503.9

**1503.10 Required Appurtenances.** The reclaimed (recycled) water system and the potable water system within the building and the premises shall be provided with the required appurtenances (e.g., valves, air/vacuum relief valves, etc.) to allow for ~~deactivation or drainage testing~~ as required for a cross-connection test in accordance with Section ~~1504.11.2~~ 1503.13.2.

**1503.11 Same Trench as Potable Water Pipes.** For piping within the premises downstream of the potable and reclaimed (recycled) water meters, reclaimed ~~Reclaimed~~ (recycled) water pipes shall be permitted to be run or laid in the same trench as potable water pipes with 12 inches (305 mm) minimum vertical and horizontal separation where both pipe materials are approved for use within a building. Where piping materials do not meet this requirement the minimum horizontal separation shall be increased to ~~60~~ 48 inches (~~1524~~ 1220 mm). The potable water piping shall be installed at an elevation above the reclaimed (recycled) water piping. Reclaimed (recycled) water pipes laid in the same trench or crossing building sewer or drainage piping shall be installed in accordance with this code for potable water piping.

**1503.12 Signs**~~Signage~~. Signs in rooms and water closet tanks in buildings using reclaimed (recycled) water shall be in accordance with Section ~~1504.10~~ and Section ~~1504.10.1~~ 1503.12.1, 1503.12.2, and 1503.12.3. Signs on access doors to valves and appurtenances shall be in accordance with Section 1503.8.2. Outdoor signs in areas where recycled water is used shall be in accordance with Section 1503.12.4.

**1503.12.1 Commercial, Industrial, Institutional, and Residential Restroom Signs.** A sign shall be installed in each restroom of commercial, industrial, and institutional occupancies, and in residential common use areas using reclaimed (recycled) water for water closets, urinals, or both. Each sign shall contain ½ of an inch (12.7 mm) letters of a highly visible color on a contrasting background. The location of the sign(s) shall be such that the sign(s) are visible to users. The location of the sign(s) shall be approved by the Authority Having Jurisdiction and shall contain the following text:

TO CONSERVE WATER, THIS BUILDING USES RECYCLED WATER TO FLUSH  
TOILETS AND URINALS.

**1503.12.2 Tank-Type Toilets.** Where tank-type toilets (water closets) are flushed with recycled water, a permanent sign (such as plastic or stainless steel) shall be installed inside the tank to warn that the water within the tank is not a suitable emergency drinking water supply. The sign shall be labeled: "CAUTION: NONPOTABLE RECYCLED WATER – DO NOT DRINK."

**1503.12.3 Equipment Room Signs.** Each room containing reclaimed (recycled) water equipment shall have a sign posted in a location that is visible to anyone working on or near reclaimed (recycled) water equipment with the following wording in 1 inch (25.4 mm) letters on a purple background:

CAUTION: NONPOTABLE RECYCLED WATER, DO NOT DRINK. DO NOT CONNECT TO  
DRINKING WATER SYSTEM. NOTICE: CONTACT BUILDING MANAGEMENT BEFORE  
PERFORMING ANY WORK ON THIS WATER SYSTEM.

**1503.12.4 Outdoor Signs.** All outdoor use areas where recycled water is used that are accessible to the public shall be posted with signs that are visible to the public in a size no less than 4 inches high by 8 inches wide, that include the following wording: RECYCLED WATER – DO NOT DRINK. Each sign shall display an international symbol similar to that shown in figure 601. As approved by the State Water Resources Control Board, Division of Drinking Water, alternative signage and wording, or an educational program, may be substituted provided the applicant demonstrates that the alternative approach will assure an equivalent degree of public notification.

**1503.13 Inspection and Testing.** Reclaimed (recycled) water source systems shall be inspected and tested in accordance with Section 4504.14 1503.13.1 and Section 1503.13.2.

**1503.13.1 Supply System Inspection and Test.** Reclaimed (recycled) water source systems shall be inspected and tested in accordance with this code for testing of potable water piping.

**1503.13.2 Cross-Connection Inspection and Testing.** An initial inspection and test shall be performed on both the potable and reclaimed (recycled) water source systems before the initial operation of the reclaimed (recycled) water source system. During an initial or subsequent cross-connection test, the potable and reclaimed (recycled) water source system shall be isolated from each other and independently inspected and tested to ensure there is no cross-connection in accordance with Section 1503.13.2.2. Initial or subsequent inspections or tests shall be performed in accordance with Section 1503.13.2.1 through Section 1503.13.2.4. The inspection and testing shall be performed by a cross-connection control specialist certified by the California-Nevada section of the American Water Works Association or an organization with equivalent certification requirements.

- (1) Pursuant to California Code of Regulations, Title 22, section 60316, when recycled water is used in a building or within its premises, a written report documenting the result of the inspection or testing, whether for an initial inspection and test or subsequent inspection or test conducted pursuant to Section 1503.13.2.3 or Section 1503.13.2.4, shall be submitted to the State Water Resources Control Board, Division of Drinking Water, within 30 days following completion of the inspection or testing.
- (2) A cross-connection test pursuant to Section 1503.13.2.2 shall be performed on the premises of a recycled water supply system when there is material reason to believe that the potable water system or recycled water supply system separation from another water

supply has been compromised. A material reason to believe that the system has been compromised may be based on, but is not limited to, evidence gathered (a) during a visual inspection performed pursuant to Section 1503.13.2.1 or (b) as a result of an inspection performed following complaints of water quality or flow conditions consistent with a compromised system.

**1503.13.2.1 Visual System Inspection.** Prior to commencing the cross-connection testing, a dual system inspection shall be conducted by the Authority Having Jurisdiction and other authorities having jurisdiction as follows:

- (1) Meter locations of the reclaimed (recycled) water source and potable water lines shall be checked to verify that no modifications were made, and that no cross-connections are visible.
- (2) All pumps and equipment, equipment room signs, and exposed piping in equipment room shall be checked.
- (3) All valves shall be checked to ensure that the valve lock seals are still in place and intact. Valve control door signs shall be checked to verify that no signs have been removed.
- (4) If the visual inspection indicates that the reclaimed (recycled) water supply system has been modified, a Cross-Connection Test is required.

**1503.13.2.2 Cross-Connection Test.** A cross-connection test shall be performed pursuant to Section 1503.13.2. The test shall be conducted in the presence of the Authority Having Jurisdiction or other authorities having jurisdiction to determine whether a cross connection has occurred as follows:

- (1) The potable water system shall be activated and pressurized. The reclaimed (recycled) water source system shall be shut down, depressurized, and drained.
- (2) The potable water system shall remain pressurized for a minimum period of time specified by the Authority Having Jurisdiction while the reclaimed (recycled) water source system is empty. The minimum period the reclaimed (recycled) water source system is to remain depressurized shall be determined on a case-by-case basis, taking into account the size and complexity of the potable and the reclaimed (recycled) water source distribution systems, but in no case shall that period be less than 1 hour.
- (3) All fixtures, potable and reclaimed (recycled) water source, shall be tested and inspected for flow. Flow from a reclaimed (recycled) water source system outlet indicates a cross-connection. No flow from a potable water outlet shall indicate that it is connected to the reclaimed (recycled) water source system.
- (4) The drain on the reclaimed (recycled) water system shall be checked for flow during the test and at the end of the test.
- (5) The potable water system shall then be depressurized and drained.
- (6) The reclaimed (recycled) water source system shall then be activated and pressurized. For the initial test, a temporary connection to a potable water supply will be required to test the recycled water system plumbing. At the conclusion of the test, the temporary connection to the potable water supply shall be disconnected.
- (7) The reclaimed (recycled) water source system shall remain pressurized for a minimum period of time specified by the Authority Having Jurisdiction while the potable water system is empty. The minimum period the potable water system is to remain

depressurized shall be determined on a case-by-case basis, but in no case shall that period be less than 1 hour.

- (8) All fixtures, potable and reclaimed (recycled) water source, shall be tested and inspected for flow. Flow from a potable water system outlet indicates a cross-connection. No flow from a reclaimed (recycled) water source outlet will indicate that it is connected to the potable water system.
- (9) The drain on the potable water system shall be checked for flow during the test and at the end test.
- (10) Where there is no flow detected in the fixtures that would indicate a cross-connection, the potable water system shall be repressurized.

**1503.13.2.3 Discovery of Cross-Connection.** In the event that a cross-connection is discovered, the following procedure shall be activated immediately:

- (1) Notify the Authority Having Jurisdiction of the cross-connection.
- (2) The reclaimed (recycled) water source piping to the building and its premises shall be shut down at the meter, and the reclaimed (recycled) water source riser shall be drained.
- (3) Potable water piping to the building and its premises shall be shut down at the meter.
- (4) The cross-connection shall be uncovered and disconnected.
- (5) The building and its premises shall be retested in accordance with Section 1503.13.2.1 and Section 1503.13.2.2.
- (6) The potable water system shall be chlorinated with 50 parts-per-million (ppm) chlorine for 24 hours.
- (7) The potable water system shall be flushed after 24 hours, and a standard bacteriological test shall be performed. Where test results are acceptable, the potable water system shall be permitted to be recharged.

**1503.13.2.4 Periodic Inspection.** Periodic visual inspections of reclaimed (recycled) water supply systems shall be required by the Authority Having Jurisdiction following the procedures in Section 1503.13.2.1. Annual visual inspections shall be required for reclaimed (recycled) water use in outdoor landscape irrigation at individual residences, or for reclaimed (recycled) water use within buildings. Where reclaimed (recycled) water use on a premises is limited to outdoor landscape irrigation at sites other than individual residences, visual inspections shall occur at a frequency as required by the Authority Having Jurisdiction, but in no case less than once every 4 years. Cross-connection testing shall be required by the Authority Having Jurisdiction, following the procedures listed in Section 1503.13.2.2, at least once every 4 years, unless site conditions require more frequent testing as determined by the Authority Having Jurisdiction. Alternate testing requirements shall be permitted by the Authority Having Jurisdiction for residential, institutional, or industrial buildings where shutting off the water is not practical. The reclaimed (recycled) water purveyor or other designated appointee may substitute for the Authority Having Jurisdiction for the purpose of inspections and tests pursuant to this section.

**1503.14 Minimum Water Quality Requirements for Reclaimed (Recycled) Water.** The minimum water quality for reclaimed (recycled) water shall meet the applicable water quality requirements of California Code of Regulations, Title 22, Division 4, Chapter 3 (commencing with Section 60301) for disinfected tertiary recycled water and the applicable reclaimed (recycled) water use.

**1503.15 Maintenance and Inspection.** Reclaimed (recycled) water source systems and components shall be inspected and maintained in accordance with the manufacturer's recommendations and/or as required by the Authority Having Jurisdiction and shall comply with Sections 1503.15.1 and 1503.15.2.

**1503.15.1 Method and Frequency.** Reclaimed (recycled) water source systems and components shall be inspected and maintained in accordance with the manufacturer's recommendations and/or as required by the Authority Having Jurisdiction. The frequency of testing, inspection, and maintenance shall be in accordance with Table 1503.15.

**1503.15.2 Maintenance Log.** A maintenance log for reclaimed (recycled) water systems is required to have a permit in accordance with Section 1503.2 and shall be maintained by the property owner and be available for inspection. The property owner or designated appointee shall ensure that a record of testing, inspection and maintenance in accordance with Table 1503.15 is maintained in the log. The log will indicate the frequency of inspection and maintenance for each system.

**TABLE 1503.15  
MINIMUM ALTERNATE WATER SOURCE TESTING, INSPECTION, AND MAINTENANCE FREQUENCY**

<b><u>DESCRIPTION</u></b>	<b><u>MINIMUM FREQUENCY*</u></b>
<u>Inspect and clean filters and screens, and replace (where necessary).</u>	<u>Every 3 months.</u>
<u>Inspect pumps and verify operation.</u>	<u>After initial installation and every 12 months thereafter.</u>
<u>Inspect valves and verify operation.</u>	<u>After initial installation and every 12 months thereafter.</u>
<u>Inspect pressure tanks and verify operation.</u>	<u>After initial installation and every 12 months thereafter.</u>
<u>Clear debris from and inspect storage tanks, locking devices, and verify operation.</u>	<u>After initial installation and every 12 months thereafter.</u>
<u>Inspect caution labels and marking.</u>	<u>After initial installation and every 12 months thereafter.</u>

*\* Note: Frequency is as described in this table, or more frequently as required by manufacturer's instructions and/or the Authority Having Jurisdiction.*

#### **1504.0 On-Site Treated Nonpotable Water Systems.**

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**1504.2 Plumbing Plan Submission.** No permit for an on-site treated nonpotable gray water system shall be issued until complete plumbing plans, with data satisfactory to the Authority Having Jurisdiction, have been submitted and approved. **(BSC-CG)** Prior to commencing the issuance of permits for indoor gray water systems pursuant to state requirements relating to graywater, a city, county, city and county or other local agency shall seek consultation with the local public health department to ensure that local public health concerns are addressed in local standards or ordinances, or in issuing permits. See California Water Code Section 14877.3.

**1504.4 Connections to Potable or Reclaimed (Recycled) Water Systems.** On-site treated nonpotable gray water systems shall have no ~~unprotected~~ connection to a potable water supply or reclaimed (recycled) water ~~source~~ supply system.

#### **Exceptions:**

- (1) Potable or reclaimed (recycled) water is permitted to be used as makeup water for a non-pressurized graywater storage tank provided the makeup water supply inlet is protected by an air gap, ~~reduced pressure principle backflow preventer or other physical device which prevents backflow~~ in accordance with this code.
- (2) A potable water supply may be connected temporarily for initial testing of the on-site treated nonpotable gray water system.

....

#### 1504.10 Design and Installation.

....

**1504.10.2 Minimum Water Quality.** On-site treated nonpotable *gray* water supplied to toilets or urinals or for other uses in which it is sprayed or exposed shall be disinfected. Acceptable disinfection methods shall include chlorination, ultraviolet sterilization, ozone, or other methods as approved by the Authority Having Jurisdiction. The minimum water quality for on-site treated nonpotable *gray* water systems shall meet the applicable water quality requirements for the intended applications as determined by the public health Authority Having Jurisdiction. *In the absence of local water quality requirements for on-site treated nonpotable gray water, Section 1601.7 1501.7 the requirements of NSF/ANSI 350 shall apply.*

**Exception:**

Water treatment is not required for gray water used *in a disposal field or for subsurface or subsoil irrigation.*

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**Notation:**

Authority: Health and Safety Code Sections 18928, 18930.5, 18934.5, and 18940.6

Reference: Health and Safety Code Section 18928.1 and 18940.6

#### **ITEM 10. CBSC proposes to adopt and amend Chapter 16, Sections 1602 of the 2016 California Plumbing Code as follows:**

### CHAPTER 16 NONPOTABLE RAINWATER CATCHMENT SYSTEMS

....

**1602.4 Connections to Potable or Reclaimed (Recycled) Water Systems.** Rainwater catchment systems shall have no ~~unprotected~~ connection to a potable water supply or alternate water source system. ~~Potable or reclaimed (recycled) water is permitted to be used as makeup water for a rainwater catchment system provided the potable or reclaimed (recycled) water supply connection is protected an air gap or reduced pressure principle backflow preventer in accordance with this code.~~

**Exceptions:**

- (1) Potable or reclaimed (recycled) water is permitted to be used as makeup water for a non-pressurized rainwater catchment system storage tank provided the makeup reclaimed (recycled) water supply inlet connection is protected by an airgap in accordance with this code.*
- (2) A potable water supply may be connected temporarily for initial testing of the rainwater catchment system.*

**Notation:**

Authority: Health and Safety Code Sections 18928, 18930.5, 18934.5, and 18940.6

Reference: Health and Safety Code Section 18928.1 and 18940.6